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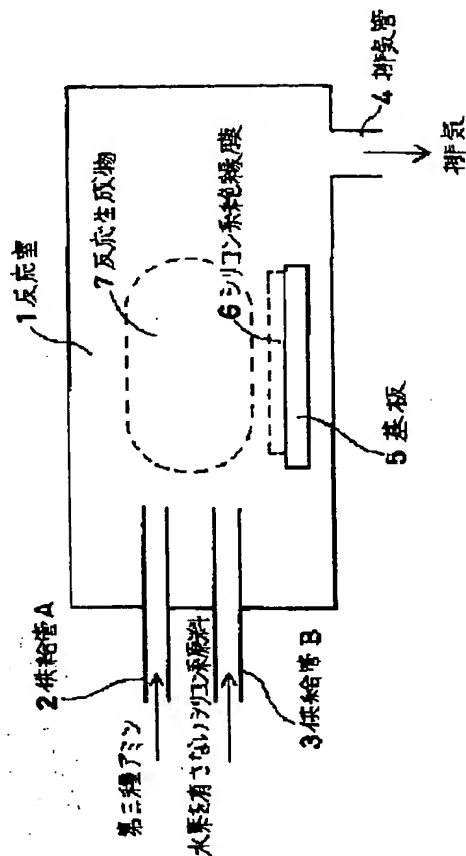
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TITLE : MANUFACTURE OF SILICON
INSULATING FILM



ABSTRACT : PROBLEM TO BE SOLVED: To enable a hydrogen-free silicon insulating film to be easily manufactured by a method wherein a hydrogen-free silicon material is made to react with a mixed gas or liquid which contains tertiary amine to deposit a silicon insulating film on a substrate.

SOLUTION: A hydrogen-free silicon material and tertiary amine both in gas phase or the vapor of liquid phase of them are introduced into a reaction chamber direct, or by the use of carrier gas. Tertiary amine fed through a feed pipe A and hydrogen-free silicon material fed through a feed pipe B are made to react on each other in the reaction chamber 1 to form silicon insulating material, and the silicon insulating material is deposited as an silicon insulating film 6 on a substrate 5. Trialkylamine such as trimethylamine is used as tertiary amine. Tetra isocyanate silane is used as hydrogen-free silicon. By this setup, an excellent silicon insulating film can be deposited at a low temperature.

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